ABSTRACT OF THE DISCLOSURE

Methods and systems consistent with the present invention provide an improved software development tool that generates a pattern, that applies a pattern to a portion of code, and that defines a user pattern from code. To generate a pattern, the software development tool receives an indication of a pattern, generates software code reflecting the pattern, and stores identification information for the pattern in a comment associated with the generated software code. To apply a pattern, the software development tool receives an indication of the software element, determines whether the software element is capable of playing the role, and when it is determined that the software element is capable of playing the role, designates that the software element plays the role in the pattern. To create a pattern, the software development tool displays a plurality of software elements to a user, receives an indication of a selected one of the plurality of software elements, receives an indication of a user-defined pattern role that the selected software element plays in a pattern, and stores the plurality of software elements as the pattern.